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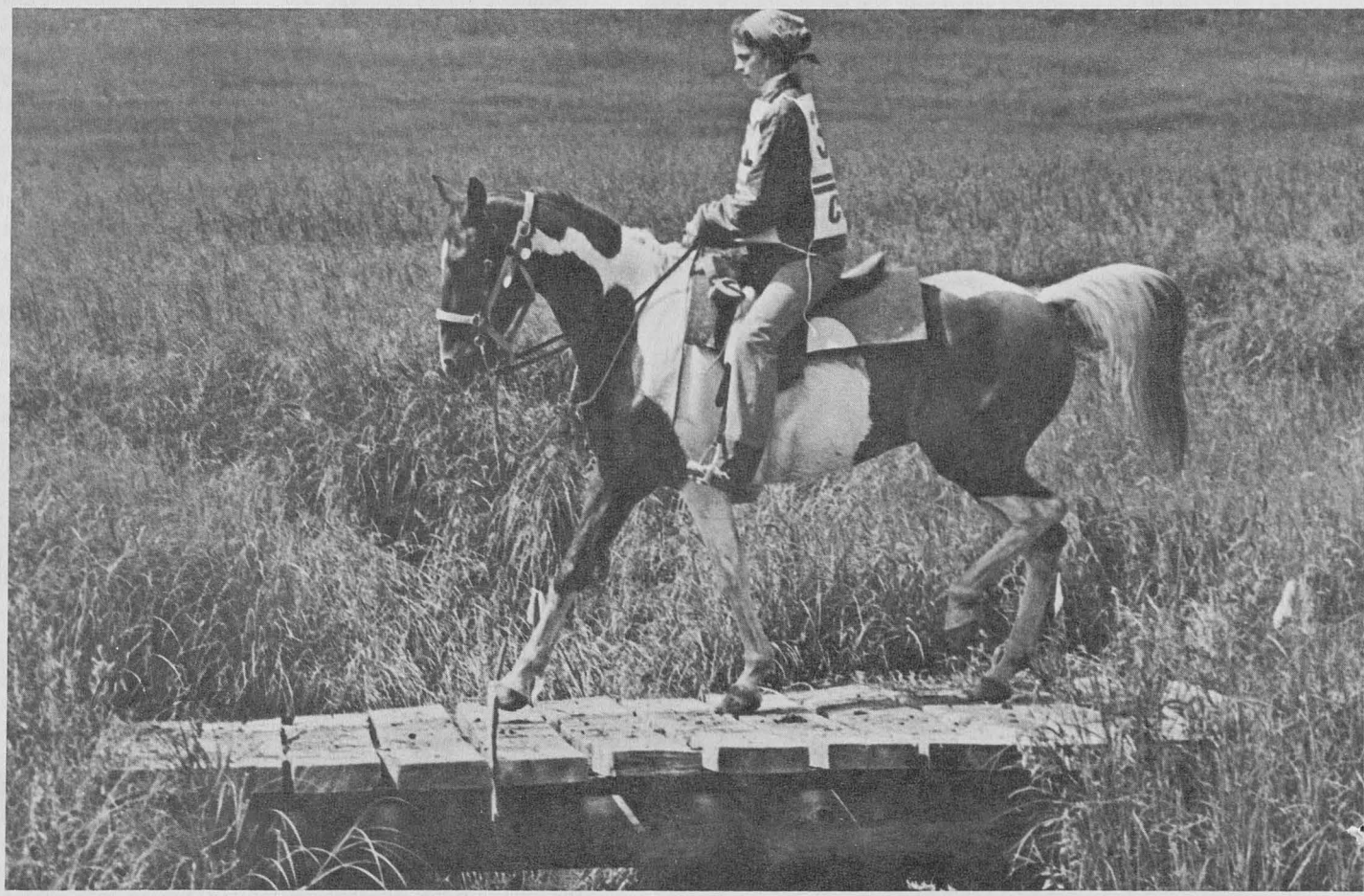
Competitive And Endurance Trail Riding

By R. M. Jordan, extension animal scientist, and Marie Larson



For competitive and endurance trail riding, the horse must have complete confidence in its rider or negotiating an obstacle like this bridge is impossible. Notice the "good foot" on this horse which is a great asset in keeping him sound. Riding the horse is Marie Larson, co-author of this publication and a competitive rider from Preston.

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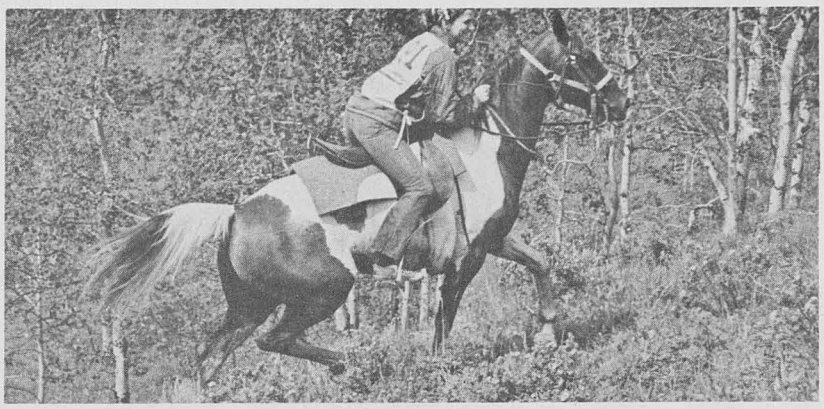


On the trail, the rider helps her horse by getting up over his withers with a lot of her weight carried in the stirrup irons.

Endurance and competitive trail riding are becoming increasingly popular in the upper midwest. Many say these are the most enjoyable, thrilling activities a rider can have.

Both are excellent exercise for the horse and rider. They require teamwork; thus, they often become family activities. Equally important, endurance and competitive riding teach young people about horses' skeletal structures, muscles, and the physiology of strenuous exercise.

The endurance ride is a 50- to 100-mile race. However, there's an added requirement—the horse must be in good physical condition at the end of the race. "Good physical condition" is measured primarily by the ratio of the heart beat (pulse) to the respiration rate. Sound locomotion at the end of the race is also judged.

The competitive ride is usually 25 to 50 miles. For 25 miles, the controlled time is usually 3 to 4 hours. The competitive ride demonstrates not only the horse's condition and, to a slight extent, its speed, but also its ability to negotiate a trail.

The horse in a competitive ride is judged as it moves along the trail and, often, at natural obstacles (logs and ditches, for example). In addition, a veterinarian records the horse's condition: how it looks, its general attitude, its feet and legs, and its vital signs—temperature, pulse, and respiration rate.

The horse's vital signs are checked at the beginning, halfway through the ride, and again at the end. During these checks, the judges observe how well the horse stands, how it handles, and the horse's appearance. Although this is not a show, both horse and rider should make a good appearance—both should be neat and clean, the horse should be brushed, and long hairs on the horse's fetlocks should be trimmed, and the hoofs should be in good shape and clean.

Usually, both endurance and competitive rides are conducted over varying terrain that often includes steep grades. A popular ride in Minnesota is over Pillager Hills. This terrain tests horse and rider and is more interesting than where the land is less undulating. Other rides include Preston, Belle Plain, Ft. Sisseton, S.D., and several in Wisconsin and Illinois.

Good conditioning of the horse is required to ride it 25 miles in 3 to 4 hours and have it finish in good condition with a normal pulse and respiration rate (70 pulse beats and 40 respirations per minute). The preride examination clearly indicates the horse's vital signs and overall fitness, and the veterinary checkpoint report specifically rates the horse's temperature, pulse, respiration, attitude, degree of fatigue, dehydration, and whether excessive strain has resulted in lameness, etc. Lame horses and horses not recovering to a 70:40 pulse:respiration ratio within a specified time are disqualified.

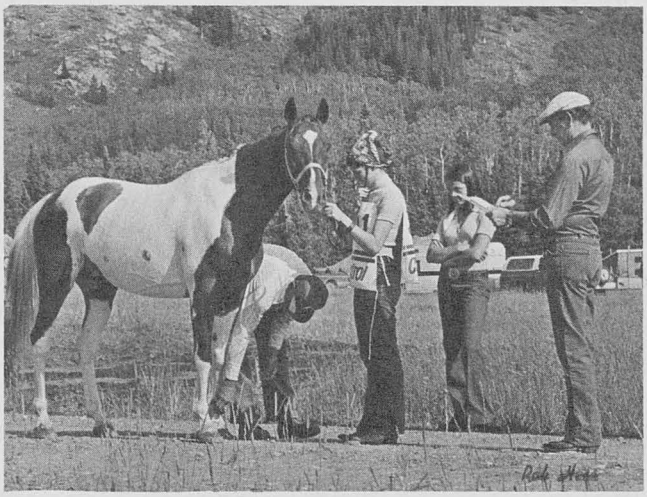
Just as with a race horse, the horse's conditioning for a competitive ride should: (a) build overall strength; (b) build cardiovascular capacity; (c) build energy reserves; and (d) provide psychological conditioning. Training increases the sturdiness of the muscular-skeletal system and strengthens the ligaments and cartilage so they can better stand stress and exertion. During training and conditioning, the muscles increase in size, become better able to store energy reserves, and can function longer without becoming fatigued. Fatigue causes incoordination, missteps, and injury.

Although some breeds excell in endurance and competitive rides, winners can come from any breed and most types. However, some conformation factors enable a horse to operate more efficiently and with less stress and fatigue. Too much fat increases the burden on the horse's skeleton and muscles. Generally, a fat horse is underconditioned. Steep shoulders shorten the stride and increase impact for both horse and rider. Long, low pasterns increase tendon stress and energy requirements to flex the hoofs. A horse with small hoofs has greater concussion per area of hoof than does a horse with larger hoofs; therefore, the smaller-hoofed horse will more likely go lame. In addition, the set of the horse's legs and how the horse stands—pigeon-toed or splay-footed—affects its ability to tolerate a 25-mile competitive ride. Horses that paddle or wing in, that are sickle-hocked, or that lack athletic ability are at a distinct disadvantage.

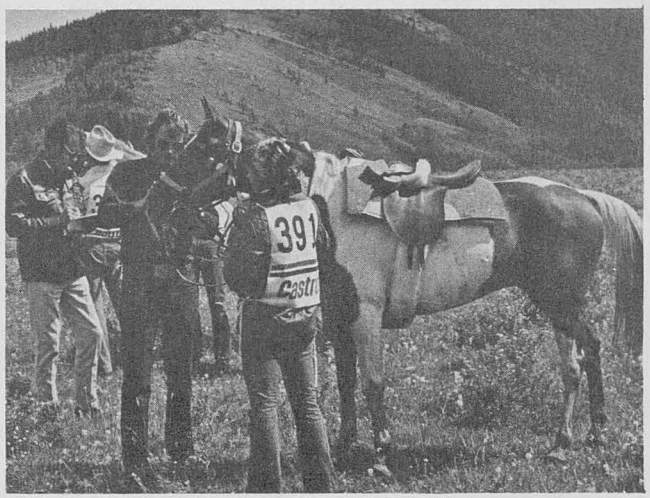
Conditioning increases the horse's efficiency and ability to aerobically utilize carbohydrates or energy. The aerobical (utilizing oxygen) metabolism of stored body energy can be sustained over a much longer time than can the metabolism of energy (largely glycogen) anaerobically (without oxygen). Training increases by over 50 percent the percentage of maximal aerobic power during prolonged workouts. To increase aerobic capacity, the heart-cardiac output (volume of blood circulated per heart beat) must be increased. The pulse rate, the lung capacity, the oxygen transport via the hemoglobin, and the extensiveness of the capillary system within the muscles are all enhanced by conditioning.

Actually, maximum aerobic capacity seems to be inherited (at least that's true in humans), but it can be increased 10-20 percent by conditioning. Furthermore, heart size and volume of blood per beat can be increased through training—particularly during the developing years. When these changes occur, the horse is more able to stand exertion without damaging its system.

Perhaps the science of human conditioning and training is more advanced than for horses. Certainly, greater improve-



Before the ride, a veterinarian examines each horse for soundness. Notice the condition and attitude of this horse. He is hard and muscular, trim in his middle, certainly not thin, yet honed down to perform. He is quiet, thus not wasting a lot of energy.



Halfway through the ride, the horse is checked for respiration and heart beat rate. Notice how quiet he is. The rider has used a wide, soft girth to avoid a cinch gall. Painstakingly conditioning a horse for a 25-mile trip helps the rider become a true horseperson.

ments in records have been made by man than by horses. Thus, methods used by track coaches may be equally applicable to horses. Each horse is an individual; what works best with one may not work with another horse. Training methods may have to differ.

Let's consider a horse that you want ready for a competitive ride within 8 weeks. Initially, the horse may be soft, unconditioned, and either overfat or too thin. You should start out slow and easy to avoid hurting any of the horse's muscles, slowly increasing distance and speed. This exercise will develop the horse's skeletal and muscular systems. The horse will quickly learn to breathe more properly. Ride fast enough to make the horse work its heart and develop good respiration. Ideally, you should ride over a combination of flat ground and some rolling hills as well as a few steep hills. This should not unduly strain the horse, yet it makes the horse exert itself to the fullest for a short time. Your goal is a well-conditioned horse. The conditioning process should be fun both for you and the horse. Avoid a boring routine and rest yourself and your horse 1 day each week.

Conditioning schedule for a 25-mile competitive ride

First week

Goal: 3 miles in 15 minutes
Procedure: easy, avoiding strain

Day	Miles	Day	Miles
1	1	4	2.5
2	2	5	3
3	2	6	3

Use 15 minutes to cover each of the distances. Develop an extended trot which is easiest on the horse yet develops good wind and builds muscle. At the end of each ride, walk your horse to cool it off and wash the sweat off its back. During warm days, you can sponge the horse down all over. Check your tack. A sweat-stiff, wrinkled blanket can gall a horse's back as easy as can an ill-fitting saddle.

Before you put your horse into its stall, check the horse's pulse and respiration (your veterinarian or county extension agent will show you how). The horse's pulse shouldn't be higher than 70 beats per minute, and respiration should not be higher than 40 (hereafter referred to as the pulse:respiration ratio). If the ratio exceeds 70:40, your horse is in poor physical condition.

Second week

Goal: 5 miles in 25 minutes
Procedure: moderate exercise—extended trot

Day	Miles	Day	Miles
1	3.5	4	4.5
2	4.0	5	5.0
3	4.0	6	5.0

Check your horse's condition. Is it breathing too rapidly; are its flanks fluttering? If so, stay at 4 miles for the entire week.

To hasten its conditioning progress, vary the speed that you cover a given distance. Increase speed 1 day, and vary distance the next. Teach your horse to respond to leg pressure, extend his trot, but don't let him canter.

Third week

Goal: 7 miles in 30 minutes
Procedure: same speed as 2nd week but more miles

Day	Miles	Day	Miles
1	5.5	4	6.5
2	6.0	5	7.0
3	6.0	6	7.0

Cover the distance at a brisk trot on 2 days, and the other days reduce speed somewhat. If your conditioning program is progressing properly, your horse's pulse:respiration ratio should be below 70:40. If not, your horse may not have the physiological capacity to compete in strenuous riding programs.

Fourth week

Goal: 9 miles in 35 minutes
Procedure: same speed as during 3rd week, but increased distance

Day	Miles	Day	Miles
1	7.5	4	8.5
2	8.0	5	9.0
3	8.0	6	9.0

Two days out of the week go at the fastest trot possible. You'll notice a big difference in pulse:respiration by now, and you will have a good idea how far you can extend your horse. At the end of the week, you've completed half of the conditioning program for a 25-mile ride.

Fifth week

Goal: 12 miles in 45 minutes
Procedure: hard exercising—brisk trot

Day	Miles	Day	Miles
1	10	4	5
2	5	5	12
3	11	6	5

Notice the great variation in distance from day to day. This avoids too many miles in 1 week, preventing sore muscles and tender feet. However, if the horse acts tired, slack off 1 day and come back strong the next day. Improving the horse's respiration and circulatory system requires a combination of speed and distance. Long, slow rides won't develop the horse's system.

Sixth week

Goal: 15 miles in 65 minutes
Procedure: fast trot and some cantering

Day	Miles	Day	Miles
1	13	4	5
2	5	5	15
3	14	6	5

Seventh week

Goal: 15 miles in 60 minutes
Procedure: like the 6th week, plus on 1 day, go 20 to 25 miles at an easy pace (4-5 hours)

Day	Miles	Day	Miles
1	15	4	5
2	5	5	15
3	15	6	5

If your horse can go 15 miles in 60 minutes with a pulse: respiration ratio of 70:40 within 6 to 8 minutes after the ride, he is ready for a 25-mile ride.

Eighth week

Goal: keep your horse limber and supple, yet conserve energy
Procedure: easy exercise—shorter distances and only short speed distances

Day	Miles	Day	Miles
1	7	4	4
2	6	5	3
3	5	6	2

Tapering down exertion enables the muscles to store a maximum amount of energy.

Feeding and management schedule

During this 8-week period, your horse has expended a tremendous amount of energy. If it was initially too fat, the horse was able to "run off its back" for a week or so, but as you step up the vigor of the program, you must increase the horse's energy intake. Don't load the horse up on hay or protein, because both will detract from the horse's performance. A 1,000-pound horse will need about 10 pounds of good hay (green, leafy, alfalfa-brome grass is ideal) per day. In addition, increase the daily grain intake to 10 to possibly 15 pounds per day. An ideal grain mix is equal parts of heavy oats and corn. If you use grass hay, add 10 percent protein supplement to the grain ration. Provide a salt-mineral mix of 75 percent trace salt and 25 percent ground limestone. Don't rely on a salt block for salt.

A well-conditioned horse has firm muscles, is trim-middled, clean about its neck and throat, and is anxious for a good ride. Don't equate a hollow belly, rough hips, and prominent ribs with racing condition. These are signs of inadequate energy intake.

Check your horse's back, tendons, and feet every day. An ill-fitting saddle or improper riding (all the weight's in the seat, with little borne by your legs) can gall a horse and incapacitate him half the summer.

Your horse must be shod and will need to be reset at least every 4-5 weeks. Your farrier can put rubber pads between the hoof walls and the shoes to lessen the sting and shock of the hundreds of miles you will cover. During conditioning, minimize the distance traveled on roads. Ride on pastures (avoid holes) and soft dirt roads.

Day of the ride

Cut the hay fed in half, but feed the usual amount of grain.

Have somebody help you at the checkpoints. A very light grain feed at these points and someone to sponge off your horse and to give you a cool drink will be welcomed.

Know the trail and the locations of the checkpoints.

Ride smart—get up out of the saddle; don't burn your horse out; give the horse a chance to get its second wind (aerobic metabolism). A steady pace is what wins races and is easiest on your horse.

Between races

If your horse is well-conditioned, you can maintain that edge by easy exercise over relatively short distances. We suggest the following schedule:

Day	Miles	Day	Miles
1	2	4	Rest
2	3	5	3
3	5	6	2

If your horse still has poor pulse:respiration ratio, this schedule may help.

Day	Miles	Day	Miles
1	3	4	5
2	5	5	3
3	7	6	2

Ride these distances at a fast pace to build up endurance and respiration capacity.

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